

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION
(PCT Rule 61.2)

Date of mailing (day/month/year) 23 March 2001 (23.03.01)	ETATS-UNIS D'AMERIQUE in its capacity as elected Office
International application No. PCT/EP00/05970	Applicant's or agent's file reference 701.536
International filing date (day/month/year) 27 June 2000 (27.06.00)	Priority date (day/month/year) 20 July 1999 (20.07.99)
Applicant DALLAN, Sergio	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

07 February 2001 (07.02.01)

in a notice effecting later election filed with the International Bureau on:

2. The election was

1

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer</p> <p>Juan Cruz</p> <p>Telephone No.: (41-22) 338.83.38</p>
---	---

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 January 2001 (25.01.2001)

PCT

(10) International Publication Number
WO 01/05534 A1

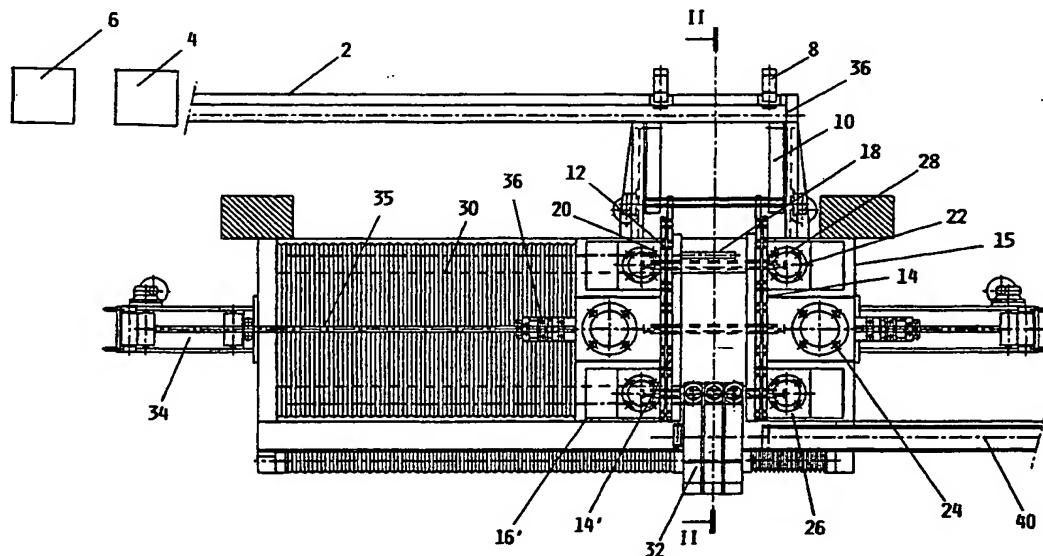
- (51) International Patent Classification⁷: **B21D 43/28, B23Q 7/14, B23P 19/04**
- (21) International Application Number: **PCT/EP00/05970**
- (22) International Filing Date: **27 June 2000 (27.06.2000)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
VE99A000031 20 July 1999 (20.07.1999) IT
- (71) Applicant (*for all designated States except US*): **DALLAN S.R.L. [IT/IT]**; Via Per Salvatronda, 50, I-31033 Castelfranco Veneto (IT).
- (72) Inventor; and
- (75) Inventor/Applicant (*for US only*): **DALLAN, Sergio [IT/IT]**; Via Per Salvatronda, 50, I-31033 Castelfranco Veneto (IT).
- (74) Agent: **PIOVESANA, Paolo**; Corso del Popolo, 70, I-30172 Venezia Mestre (IT).
- (81) Designated States (*national*): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— *With international search report.*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ASSEMBLY MACHINE FOR THE AUTOMATIC PRODUCTION OF STRUCTURAL ELEMENTS FOR FALSE CEILINGS



(57) Abstract: A machine for the automatic production of structural elements for false ceilings, characterised by comprising a stepping feeder (12) for the profile bars (38) cut to size, two series of lateral stations (22, 24, 26) interfering with the ends of the profile bars fed transversely by said stepping feeder, and a plurality of dies provided in the different stations to subject the ends of the profile bars to the required operation, the position of a least one of the series of stations being adjustable relative to the other.

WO 01/05534 A1

ASSEMBLY MACHINE FOR THE AUTOMATIC PRODUCTION OF STRUCTURAL ELEMENTS FOR FALSE CEILINGS

This invention relates to an assembly machine for the automatic production of structural elements for false ceilings.

5 Structural elements for false ceilings are known, consisting of profile bars of inverted T-shape provided at their ends with hooks formed either directly from the central web of the T profile bar or from inserts which are formed separately for application to each profile during its production.

Said profile bars are connected together to form a lattice structure
10 which by means of steel ties or cables is generally suspended at its top from the ceiling, their horizontal flanges lowerly supporting panels, staves and anything else required to form the false ceiling.

Such structural elements are currently formed using single-die presses, ie presses comprising a die of dimensions corresponding to the
15 length of the profile bar to be formed, which is housed within the press and on which the various operations are carried out, possibly in a single step but more generally in several steps, and always within the actual die in which the bar is positioned. Said die is provided with a plurality of punches which are operated in sequence to effect on the bar such operations as perforating,
20 drawing, crimping, etc.

These known single-die presses have however certain drawbacks, namely:

- poor flexibility in that for each size (length) of profile bar the press requires a particular die which has to be changed each time the profile bar is to be modified or following any change in dimensions or type of operation,

- they require a large number of different dies depending on the type of hook, the length of the profile bars and the type of operation to be carried out,
- they immobilize capital,
- they occupy considerable storage space.

5 An object of the invention is to eliminate there drawbacks by providing an assembly machine in which profile bars of different dimensions and different hook types can be worked.

This object and further ones which result from the ensuing description are attained through an assembly machine as described in claim 1.

10 A preferred embodiment of the invention is described in detail hereinafter with reference to the accompanying drawings, on which:

Figure 1 is a plan view of the assembly machine of the invention, and

Figure 2 is a cross-section there through on the line II-II of figure 1.

As can be seen from the figures, the assembly machine of the
15 invention comprises a conveyor belt 2 provided downstream of a floating cutter 4 positioned at the exit of a forming machine 6.

At the downstream end of said conveyor belt there are provided two pushers 8 which move axially perpendicular to the axis of the belt 2.

Again at the downstream end of said belt there are provided two
20 conveyor straps 10 which are inclined slightly downwards and feed a stepping device indicated overall by 12.

The stepping device comprises a pair of parallel chains 14, 14' mounted respectively on two shoulders 16, 16', one 16' of which is movable relative to the other shoulder 16 via a guide system 18 and manually operable
25 recirculating ball sliders 20.

Three pairs of dies 22, 24, 26 are mounted on the shoulders 16, 16' and are each operated by a corresponding hydraulic cylinder 28.

With the shoulder 16' there is associated a bellows screen 30 able to cover the distance between the operating face of the dies and the left hand 5 ends of the die bench following the movement of the shoulder 16'.

At the pair of dies 26, the machine of the invention also comprises movable transverse stations 32 positionable on the central part of the profile bar to be worked, and in particular on its vertical web.

A reel 34 about which steel strip 35 passes is provided to the side of 10 the intermediate pair of dies.

The machine of the invention operates in the following manner: after adjusting the distance between the shoulders 16, 16' to adapt them to the length of the profile bars 38 to be worked, these profile bars, leaving the forming machine 6 already of T shape and cut by the floating cutter 4, are 15 made to advance along the conveyor 2 until they encounter a limit switch 36, at which the pushers 8 transfer them onto the conveyor 10 such that they lie substantially on their side, ie with their web, vertical when installed, now lying horizontal because of the fact that the subsequent operations are performed mainly on this web.

20 The conveyor 10 transfers the profile bars stepwise to the device 12, which with its pair of chains 14, 14' grips each profile bar positioned transversely between the chains, raises it and advances it transversely between through a certain distance, to then lower it. The pitch of the stepping movement, ie the distance between two successive positions of each profile 25 bar, is equal to the distance between the dies corresponding to the two

working stations, and the rate of advancement of the stepping device is equal to the rate at which the pairs of dies of the two stations are operated.

At the pair of dies 24, inserts formed by a press 36 acting on the strip 35 unwound from the reel 34 are applied to the ends of the profile bar.

- 5 Alternatively, the inserts are joined together to form a tape from which they are separated, to be applied to the ends of the bar portions.

In other cases in which it is not intended to apply such inserts, the pair of dies 24 punches the ends of the profile bars to form corresponding hooks.

- 10 When the profile bars arrive at the pairs of dies 26, the transverse stations 32 operate to form in the central region of the bar either holes for suspending it from the overlying ceiling, or apertures to be hooked by hooks provided on the other bars.

The positioning of these stations depends on the length of the bar to be worked and on the type of operation to be effected.

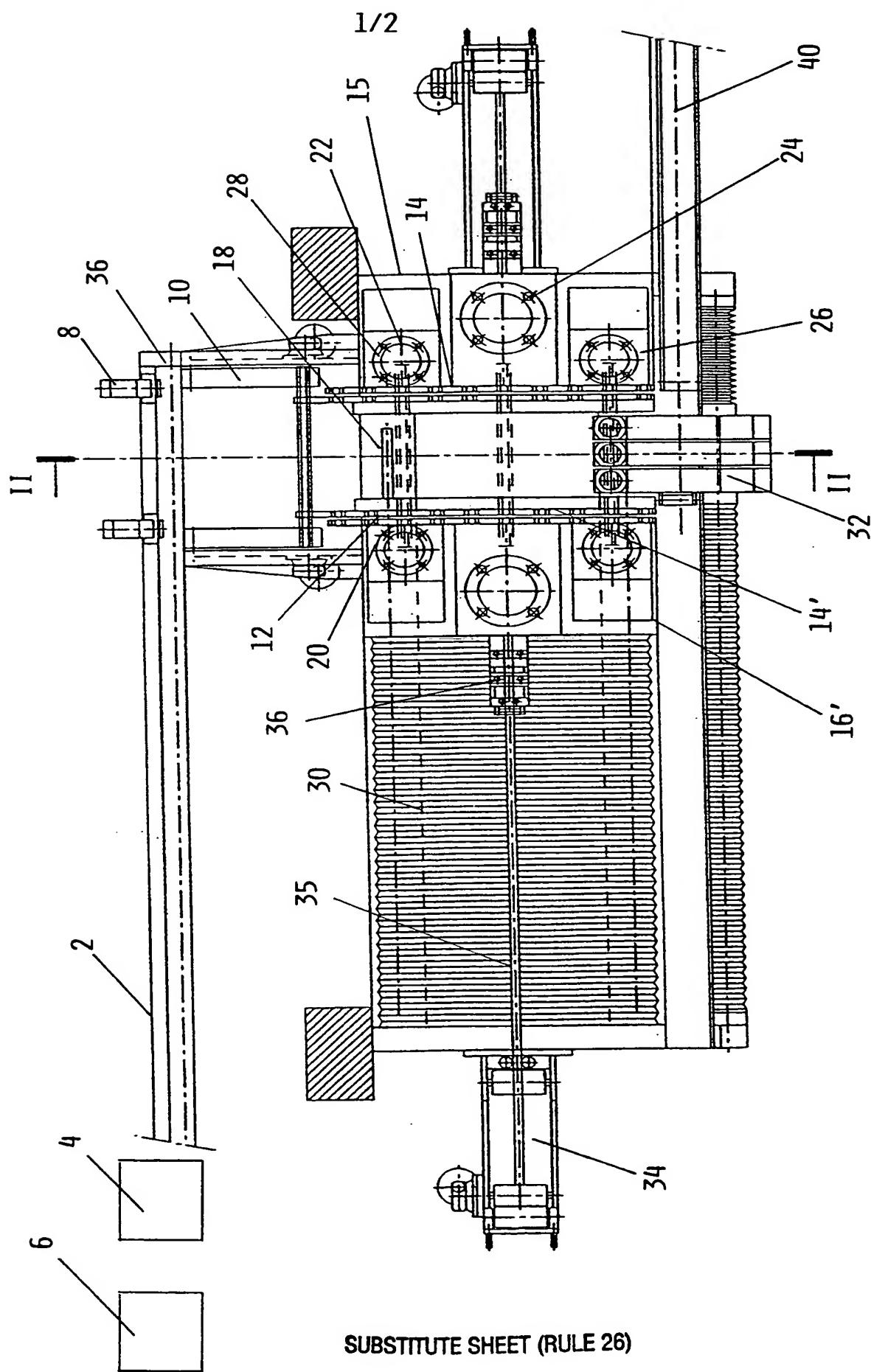
- 15 When these operations have been carried out the profile bars 38 are positioned on a conveyor belt 40 to be fed to discharge.

C L A I M S

1. A machine for the automatic production of structural elements for false ceilings, characterised by comprising a stepping feeder (12) for the profile bars (38) cut to size, two series of lateral stations (22, 24, 26) interfering with the ends of the profile bars fed transversely by said stepping feeder, and a plurality of dies provided in the different stations to subject the ends of the profile bars to the required operation, the position of at least one of the series of stations being adjustable relative to the other.
5
2. A machine as claimed in claim 1, characterised in that at least one of the series of stations is mounted on a shoulder (16') which, by means of a guide system (18) and manually operable recirculating ball slider (20), is adjustable relative to another shoulder (16) which supports the other series of stations.
10
3. A machine as claimed in claim 1, characterised in that at least one station (24) is a station for applying an insert to the ends of the profile bars.
15
4. A machine as claimed in claim 1, characterised by comprising transverse stations (32) positioned at the most downstream pair of stations, said transverse stations being movable and positionable on the profile bar to be worked in order to effect operations on the central part of the vertical web of the profile bar.
20
5. A machine as claimed in claim 4, characterised in that said station is positionable in the length direction of the profile bar.
6. A machine as claimed in claim 3, characterised by comprising, upstream of each station in which inserts are applied to the profile bar, at least one station (36) for forming the insert.
25

7. A machine as claimed in claim 1, characterised in that each die is operated by a hydraulic cylinder (28).

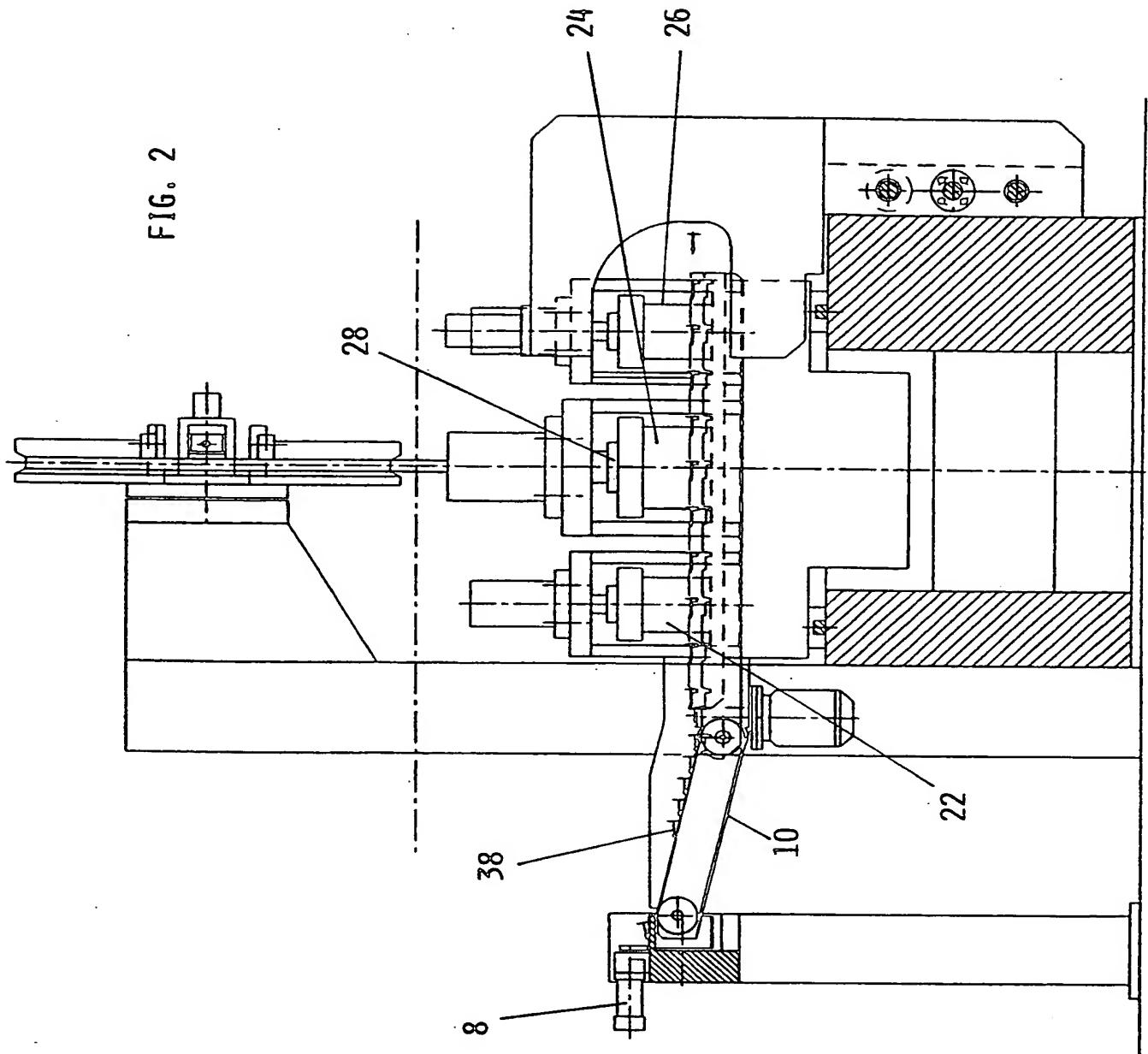
FIG. I



SUBSTITUTE SHEET (RULE 26)

2/2

FIG. 2



INTERNATIONAL SEARCH REPORT

Application No
PCT/EP 00/05970A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B21D43/28 B23Q7/14 B23P19/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B21D B23Q B23P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 292 716 A (WESTINGHOUSE ELECTRIC CORP) 30 November 1988 (1988-11-30) the whole document ---	1
A		2
X	US 4 102 173 A (SALOOM JOSEPH T) 25 July 1978 (1978-07-25) figures ---	1,7
A		2
P,X	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 13, 30 November 1999 (1999-11-30) -& JP 11 207545 A (BUNKA SHUTTER CO LTD), 3 August 1999 (1999-08-03) abstract --- -/-	1,3,7

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

19 October 2000

26/10/2000

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
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Fax: (+31-70) 340-3016

Authorized officer

Ris, M

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/05970

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FR 2 671 571 A (FENOUIZ JEAN LOUIS ; IRVANIPOUR ATAELLAH (FR)) 17 July 1992 (1992-07-17) the whole document ---	1
A	US 4 442 577 A (NUMANO MASACHIK ET AL) 17 April 1984 (1984-04-17) -----	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/05970

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
EP 0292716 A	30-11-1988	US 4804077 A		14-02-1989
		DE 3883844 D		14-10-1993
		DE 3883844 T		14-04-1994
		JP 63299820 A		07-12-1988
US 4102173 A	25-07-1978	NONE		
JP 11207545 A	03-08-1999	NONE		
FR 2671571 A	17-07-1992	NONE		
US 4442577 A	17-04-1984	JP 1394024 C		11-08-1987
		JP 57102738 A		25-06-1982
		JP 61058268 B		10-12-1986
		CA 1184021 A		19-03-1985
		DE 3149132 A		07-10-1982
		FR 2496529 A		25-06-1982
		GB 2089691 A, B		30-06-1982
		IT 1142609 B		08-10-1986

PATENT COOPERATION TREATY

PCT

REC'D 31 OCT 2001

WIPO PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 701.536	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP00/05970	International filing date (day/month/year) 27/06/2000	Priority date (day/month/year) 20/07/1999

International Patent Classification (IPC) or national classification and IPC
B21D43/28

Applicant DALLAN S.R.L.

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Date of submission of the demand 07/02/2001	Date of completion of this report 26.10.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Antoniadis, F Telephone No. +49 89 2399 2392



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP00/05970

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):
Description, pages:

1-4 as originally filed

Claims, No.:

1-5 as received on 12/10/2001 with letter of 25/09/2001

Drawings, sheets:

1/2,2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP00/05970

- the drawings, sheets:
5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):
(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)
6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N) Yes: Claims 1-5
 No: Claims

Inventive step (IS) Yes: Claims 1-5
 No: Claims

Industrial applicability (IA) Yes: Claims 1-5
 No: Claims

**2. Citations and explanations
see separate sheet**

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP00/05970

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The nearest prior art for the subject-matter of claim 1 is the general prior art described in the introduction of the description.

Inventive step:

The inserts are formed on site, directly upstream of the end processing station.

Technical effect:

Winding and unwinding of the strip reel is no longer necessary.

The production of the structural elements is made in less time.

The dependent claims 2-5 describe preferred embodiments of the invention and therefore they also meet the requirements of Art. 33 PCT.

PCT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 701.536	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/EP 00/ 05970	International filing date (day/month/year) 27/06/2000	(Earliest) Priority Date (day/month/year) 20/07/1999
Applicant DALLAN S.R.L.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :
 - contained in the international application in written form.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority in written form.
 - furnished subsequently to this Authority in computer readable form.
 - the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 - the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished
- 2. Certain claims were found unsearchable (See Box I).
- 3. Unity of invention is lacking (see Box II).

4. With regard to the title,

- the text is approved as submitted by the applicant.
- the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- the text is approved as submitted by the applicant.
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

- as suggested by the applicant.
- because the applicant failed to suggest a figure.
- because this figure better characterizes the invention.

1

None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/00/05970

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B21D43/28 B23Q7/14 B23P19/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B21D B23Q B23P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category [*]	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 292 716 A (WESTINGHOUSE ELECTRIC CORP) 30 November 1988 (1988-11-30) the whole document ---	1
A	US 4 102 173 A (SALOOM JOSEPH T) 25 July 1978 (1978-07-25) figures ---	2
X	US 4 102 173 A (SALOOM JOSEPH T) 25 July 1978 (1978-07-25) figures ---	1,7
A	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 13, 30 November 1999 (1999-11-30) -& JP 11 207545 A (BUNKA SHUTTER CO LTD), 3 August 1999 (1999-08-03) abstract --- -/-	2
P, X	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 13, 30 November 1999 (1999-11-30) -& JP 11 207545 A (BUNKA SHUTTER CO LTD), 3 August 1999 (1999-08-03) abstract --- -/-	1,3,7

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

19 October 2000

Date of mailing of the international search report

26/10/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
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Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Ris, M

INTERNATIONAL SEARCH REPORT

International Application No

PCT/00/05970

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FR 2 671 571 A (FENOUIZ JEAN LOUIS ; IRVANIPOUR ATAELLAH (FR)) 17 July 1992 (1992-07-17) the whole document ---	1
A	US 4 442 577 A (NUMANO MASACHIK ET AL) 17 April 1984 (1984-04-17) -----	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/00/05970

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
EP 0292716 A	30-11-1988	US 4804077 A		14-02-1989
		DE 3883844 D		14-10-1993
		DE 3883844 T		14-04-1994
		JP 63299820 A		07-12-1988
US 4102173 A	25-07-1978	NONE		
JP 11207545 A	03-08-1999	NONE		
FR 2671571 A	17-07-1992	NONE		
US 4442577 A	17-04-1984	JP 1394024 C		11-08-1987
		JP 57102738 A		25-06-1982
		JP 61058268 B		10-12-1986
		CA 1184021 A		19-03-1985
		DE 3149132 A		07-10-1982
		FR 2496529 A		25-06-1982
		GB 2089691 A, B		30-06-1982
		IT 1142609 B		08-10-1986

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

PIOVESANA, Paolo
Corso del Popolo, 70
I-30172 Venezia Mestre
ITALIE

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing (day/month/year)	26.10.2001
-------------------------------------	------------

Applicant's or agent's file reference 701.536	IMPORTANT NOTIFICATION	
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International application No. PCT/EP00/05970	International filing date (day/month/year) 27/06/2000	Priority date (day/month/year) 20/07/1999
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Applicant DALLAN S.R.L.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

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CLAIMS

1. A machine for the automatic production of inverted T-shaped structural elements for false ceilings, comprising a stepping feeder (12) for the T-shaped profile bars (38) cut to size, two series of lateral stations (22, 24, 26) interfering with the ends of said profile bars fed transversely by said stepping feeder (12), and a plurality of dies provided in the different stations to subject the ends of said profile bars to the required operation, the position of at least one of the series of stations being adjustable relative to the other, characterised in that at least one station (24) is a station for applying an insert to the ends of said T-shaped profile bars, said inserts being formed by a press (36) acting on a strip (35) unwound from a reel (34), said press being provided upstream of said station (24).
2. A machine as claimed in claim 1, characterised in that at least one of the series of stations is mounted on a shoulder (16') which, by means of a guide system (18) and manually operable recirculating ball slider (20), is adjustable relative to another shoulder (16) which supports the other series of stations.
3. A machine as claimed in claim 1, characterised by comprising transverse stations (32) positioned at the most downstream pair of stations, said transverse stations being movable and positionable on the profile bar to be worked in order to effect operations on the central part of the vertical web of the profile bar.
4. A machine as claimed in claim 3, characterised in that said station is positionable in the length direction of the profile bar.
5. A machine as claimed in claim 1, characterised in that each die is operated by a hydraulic cylinder (28).